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ABSTRACT

A study constituted the fifth phase of a programmatic research effort designed to develop and test a model of international communications media exposure and appraisal. The model posits that three variables--editorial tone, communication potential, and utility--have positive determinant effects on these dependent variables. Research was carried out in Belize, a small multi-lingual Central American country with no domestic television stations but with exposure to transborder television services from Mexico and the United States. Subjects, 245 high school juniors and seniors from three schools responded to a questionnaire about media exposure to Mexican and U.S. television, as well as print and radio. The Belizean youth represented a different population from elites who had been the focus of previous research. Results indicated that the proposed model provided an excellent fit with the data in the tests reported, and the amount of variance explained in appraisal and exposure was generally superior to that reported in other tests. Measurement errors were also acceptable. All of these factors taken together supported the general theoretical framework advanced in previous studies, and the overall pattern of results suggests that the model can be generalized for a variety of media, with important implications for intercultural relations. (Tables of data are included, and references are attached.) (NKA)

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A MODEL OF INTERNATIONAL COMMUNICATION MEDIA APPRAISAL AND EXPOSURE: A COMPREHENSIVE TEST IN BELIZE

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ABSTRACT

A MODEL OF INTERNATIONAL COMMUNICATION MEDIA
APPRAISAL AND EXPOSURE:
A COMPREHENSIVE TEST IN BELIZE

This study constituted the fifth phase of a programmatic research effort designed to develop and to test a model of international communication media exposure and appraisal. The model posits that three variables, editorial tone, communication potential, and utility, have positive determinant effects on these dependent variables. This research was conducted in Belize where the respondents, Belizean youth (N=250), were different from the elites which were the focus of previous research. The comprehensive tests conducted here on Mexican and U.S. television, print and radio were again supportive of the model and point to some definitive directions for future research on this model. The overall pattern of results suggested that the model can be generalized to a variety of media and has important implications for intercultural relations.

A MODEL OF INTERNATIONAL COMMUNICATION MEDIA APPRAISAL AND EXPOSURE: A COMPREHENSIVE TEST IN BELIZE

Ever since George Gallup (1930) first examined reader interests, the study of media exposure and appraisal has been a topic of continuing interest within the field of communication. Studies to date have concentrated primarily on activity measures, such as who reads and what is read. The question of why people expose themselves to and have particular appraisals of media has not been adequately explored, however.

This programmatic research has exhaustively examined the why question by testing a causal model of international communication media appraisal and exposure. The model used in this programmatic research seeks to directly link respondent evaluations of a medium with their overall appraisal of it. Thus it stands in contrast to prior research approaches which investigated the relationships of loosely interrelated variables which have no direct explanatory linkage to the dependent variable focused on here; such as demographic (e.g., Stamm, Jackson, & Bowen, 1978) and psychographic research (e.g., Urban, 1980). This is the fifth in a series of tests of this model in both developed and developing countries. Previous tests of this theoretical framework were supportive of the general model examined here (see Johnson, 1983, 1984 a,b, in press).

The model, in general, posits determinative relationships between three exogenous variables and media exposure and appraisal. The first two variables, editorial tone and communication potential, primarily relate to message content attributes; the third dimension, utility, represents a judgment of how these attributes serve individual needs (Atkin, 1973). Thus this research relates attributes of the medium to the functions they serve for the user, a focus

shared by other recent programmatic research in this area (Burgoon & Burgoon, 1979, 1980).

Previous tests with magazines were conducted in India on Economic Impact and Problems of Communism (Johnson, 1983); in Nigeria on Topic and Interlink (Johnson, 1984a); in Germany on Dialogue, Economic Impact, and Problems of Communism (Johnson, 1984b); and in the Phillipines on the films Team Spirit and Common Sea (Johnson, in press). Thus this research represents an unique attempt to validate cross-nationally a model of communication processes. The previous tests, which rested on the literature just referenced, provide us with a body of evidence which can be summarized in the following hypotheses which are presented graphically in Figure 1.

Figure 1 about here

Based on previous supportive findings of the nine tests in India, Nigeria, Germany, and the Phillipines, the following overall hypothesis can be made:

> H1: The model specified in Figure 1 will provide a good overall fit to the observed system of intercorrelations.

A number of more specific hypotheses can also be derived from prior research in this program. The first of which relates to editorial tone which reflects an audience member's perception of the overall credibility and intentions of a medium. If individuals perceive that a medium has motives other than the mere provision of information, this will weigh heavily in their evaluation and exposure decisions. In a comprehensive examination of newspapers in the United States, Burgoon and Burgoon (1979) have found this dimension,

particularly as it related to fairmindedness, to be the critical factor in determining overall satisfaction with a medium. Another component of editorial tone is perceived accuracy, regardless of motives. Burgoon and Burgoon (1979) have found that an editorial production index which included accuracy, was positively related to satisfaction and in some cases to exposure. It can be expected that higher ratings on this dimension will be associated with higher summary appraisals.

In seven of the nine previous tests the path between editorial tone and appraisal has been positive, as the literature would predict. The only exceptions were for the films examined in Phase IV in the Phillipines. This was probably attributable to the idiosyncratic nature of the film medium (see Johnson, in press), which will not be examined in this particular test. Thus:

H2: There will be a positive relationship between editorial tone and appraisal.

Since exposure was a given for films and since exposure measures were not contained in Phase III, because of the problematic findings associated with exposure in Phases I and II, exposure has only been examined in the first two phases of this research with somewhat mixed results. The more generalized magazines of Economic Impact in India and Topic in Nigeria both reported significant negative relationships between editorial tone and exposure, while the other tests supported the posited positive relationships between these two variables. However, based on the prior literature and the general direction of the appraisal findings the following hypothesis will guide this research:

H3: There will be a positive relationship between editorial tone and exposure.

Communication potential refers to an individual's perception of the manner in which information is presented. This dimension relates to issues of style and comprehension. For example, is a television program visually stimulating

and well paced? Burgoon and Burgoon (1980) have found for newspapers that such indicants as the quality of visuals and of organization, contained in an editorial production index, related to exposure in some communities. They also found that an inability to comprehend a medium was related to non-readership. In a companion study their results also indicated that this index was a very important contributor to satisfaction with newspapers (Burgoon & Burgoon, 1979). Visual attractiveness of magazines has also been related to exposure cross-nationally (Johnson & Tims, 1981). Thus the model developed here predicts generally that the higher the evaluations of communication potential, the higher will be an individual's exposure to and appraisal of a medium.

In eight out of nine of the previous tests the predicted positive relationship between communication potential and appraisal has been found. The only exception was the highly pedantic magazine Problems of Communism in India. For this, and similar magazines, the more boring and 'academic' their presentation of material, the more highly valued they may be by highly educated readers in some developing countries. Given that this finding was not repeated in Germany, we will assume for the moment it is attributable to idiosyncratic cultural differences present in India. Accordingly,

H4: There will be a positive relationship between communication potential and appraisal.

Two out of the four previous tests found the predicted positive relationship between communication potential and exposure. The exceptions were two magazines, Problems of Communism in India and Interlink in Nigeria, with specialized appeals to a limited audience, with few direct competitors, factors which may heve led people who had low evaluations of the communication potential of these magazines to still have high levels of exposure to them. However, since more general evaluations of popular mediums will be examined here the

following hypothesis will be made:

H5: There will be a positive relationship between communication potential and media exposure.

The preceding dimensions involve a direct evaluation by an individual of a particular medium, the final dimension, utility, relates the characteristics of a medium directly to the needs of an individual. For example, is the information contained in the medium important for the individual's purposes, relevant, and topical? Atkin (1973) has argued that mass media exposure will result from a combination of such needs of the receiver and the attributes of a message reflected in the first two dimensions. Indeed, perceived utility of information has been found to relate to newspaper readership (Wang, 1977) and a satisfaction index, which included a current information measure, had the strongest relationship with newspaper readership in a variety of communities (Burgoon & Burgoon, 1980). For the print media it has been argued that indicants of this dimension, such as interest, usefulness, and importance for achieving one's goals are interrelated and they have been found to be associated with exposure (Carlson, 1960).

In six out of nine of the previous tests there were positive, significant relationships between utility and appraisal. The exceptions occurred primarily in instances where there were competing media present of high quality. For example, the inverse relationship found for Topic in Nigeria was probably attributable to both the high utility of its content for readers in Nigeria, since it deals largely with African issues, and its large number of competitors; a greater number than that for any other magazine examined. Thus a greater relevance when combined with a competing medium of high quality can result in a situation where higher levels of utility result in lower appraisal ratings, since more exacting standard appear to be applied to the magazine, which as a result suffers in comparison to its competitors. Conversely low utility ratings

may cause someone to be more generous in their evaluations of a particular magazine. Since the media environment of Belize is not particularly rich, we will assume for the moment that these factors will not be present. Accordingly,

H6: There will be a positive relationship between utility and appraisal.

In three out of four of the previous test the expected positive relationship between utility and exposure was found, the only exception was for the magazine Topic in Nigeria which was in an extremely competitive media environment. Accordingly,

H7: There will be a positive relationship between utility and exposure.

The model also contains a path between appraisal and exposure, predicting that there will be a direct, positive relationship between respondent's summary evaluations and the extent of exposure. Support for this path has been found in a satisfaction index in a study of newspaper exposure in the United States (Burgoon & Burgoon, 1980). Somewhat disconcertingly, all four of the previous results suggest that this path is very weak and should be trimmed from the model at least in developing countries, where magazines of the sort examined in previous tests were faced with somewhat idiosyncratic situational problems such as severe distribution problems. Since this test involves more generally available media and a different population it was decided to reexamine the original hypothesis in this test.

H8: There will be a direct positive relationship between appraisal and exposure.

The results in previous phases have universally found moderate, positive associations between the exogenous variables. For example, the model specifies a positive relationship between the incomprehensibility of a medium, reflected in communication potential, and accuracy. If a medium is subject to multiple interpretations, then its accuracy may be unverifiable. Thus,

H9: There will be positive interrelationships between the latent variables of editorial tone, communication potential, and utility.

The comprehensive tests reported here focused on four generally available popular media in Belize. The most prevailing similarity of the media examined here is their international orientation. Television in Belize is totally originated abroad in the United States and Mexico. Radio Belize, the only radio station within the country, mixes a couple of international shortwave news services to form its regular news coverage. Besides Radio Belize, Mexican commercial radio stations reach northern Belize. The print media has the least international influence, but major U.S. newspapers and magazines are available in urban areas. Without fear of oversimplification, it can be said that the media environment of Belize is greatly influenced by forces outside of Belizean borders. Yet this does not seem to be overtly resented by Belizeans, who are themselves of diverse nationalities.

The dissimilarities among these media mainly pertain to their specific nature. Television seems to be used mostly for entertainment purposes. The staple of the commercial television services are entertainment programs. Television is also an important source of international news since Radio Belize has limited international news coverage capabilities. On the other hand, Radio Belize is relied on for local news and personalized messages. So are the local print media, which constitute the major source of local and national news. Both radio and print offer the possibilities of being carried along with the individual and it is common to see people traveling in buses listening to their transistor radios, while reading one of the Belizean tabloids. In short, television is mostly as source of entertainment as well as news about the outside world, whereas radio and print keep Belizeans in touch with themselves.

In sum, the completely specified theoretical model moves beyond the demographic and psychographic approaches that have characterized research in

this area. This phase of the programmatic research will advance our understanding of these processes in several ways. First, it will be conducted on generalized perceptions of more popular media than those examined in previous tests. The results of the film tests suggested that there might be contingent effects associated with differing media. This comprehensive test will be conducted on four different media, U.S. television, Mexican television, and radio, and print in Belize. Second, these media are not identified with a particular sponsor as were the media products examined in the previous phases of this research. Third, this test will focus on a different population, Belizean youth, than the elites which were the subject of the previous tests. Finally, because of these distinguishing characteristics, these comprehensive tests provide us with an unique opportunity to definitively answer some of the questions about the relationship of exposure to the other variables raised by the results of the previous tests.

METHOD

Background

This research was carried out in the Central American nation of Belize. With a land mass of 8,867 square miles, approximately the size of New Hampshire, and a population of roughly 150,000 people, Belize became independent from Great Britain in 1981 (Central Statistical Office, 1985). Approximately 70 per cent of the Belizean population is under 24 years of age (Central Statistical Office, 1985). While there are no domestic television stations in the country (UNESCO, 1982), this young nation still presents an unique media situation since the inhabitants of Corozal District, in Northern Belize, the location of this study,

are exposed to two transborder television services. Mexican broadcasts cross the border due to geographic proximity and U. S. television is received through satellite dishes. U.S. television is understood by most since Belize's official language is English. Mexican television has large audiences also, due to the extensive informal use of Spanish (Barnett, Oliveira, & Johnson, 1986).

The Mexican stations provides a variety of shows for 18 hours daily including such popular programs as "XE-TU," "Hogar, Dulce Hogar," "Siempre en Domingo," and "24 Horas." Especially popular are telenovelas, which resemble U.S. soap operas. These programs usually deal with a personal crises developed within the Latin American context (Oliveira, 1985; Rogers & Antola, 1985).

Reception from Mexican stations was the only source of broadcast television until 1982, when a local entrepreneur bought a satellite antenna and started a rebroadcasting service. The system is supported by fees charged to those who purchase a weekly program sheet (Silva, 1984). It has a 19-hour daily service including programs from U. S. networks such as "Another Life," "Solid Gold," and "The A-Team," along with a mix of cable offering from CNN, HBO, Cinemax and The Movie Channel.

Before the arrival of U.S. television, the multi-lingual (English, Creole, Spanish, Mayan, and Garifuna) government owned Radio Belize was the dominant medium. Although overshadowed by television since 1982, Radio Belize continues to promote government policies during local news, and resorts to re-broadcasts of international shortwave services such as the Voice of America and the BBC for international news. Its most popular service are daily personal announcements from travelers in Belize City, who need to contact their families in outer districts (Setzekorn, 1975; McDaniel, 1981). This message service is of vital importance due to the limited access to telephones in rural areas. The rest of Radio Belize's time is mostly filled with U.S., Caribbean and Spanish music (McDaniel, 1981). Besides Radio Belize, Mexican commercial stations can also be

received in northern Belize.

A variety of U. S. print media are also available to those Belizeans who can afford them. Although the Miami Herald and some U.S. magazines, such as Time, Newsweek, and Cosmopolitan can be found in newstands, the most widely read print media are by far the local weekly tabloids, among them The Reporter, Belize Times, and The Amandala. Written informally and filled with local gossip and editorial opinion, they do not claim objectivity. In fact, they are affiliated with and support local political parties in their ideological tendancies (Setzekorn, 1975).

Data Collection

Data were collected during June of 1986 in Corozal District, home of approximately 23,000 people. Two hundred and forty-five juniors and seniors from three high schools of the district responded to the questionnaire. Since there are no univerisities in the country these high schools constituted the largest concentrations of young adults in the area. The questionnaire was written in English and translated into Spanish. The method of back translation was used to assure preservation of meaning (Osgood, 1975). The data was collected by one of the authors who visited the schools and distributed the questionnaires to students in the classroom. They were asked about their language preference and were handed the questionnaire in the language, English or Spanish, of their choice. Most repondents (54%) completed the questionnaire in English. Explanations preceding each section of the questionnaire were read by the researcher in English and Spanish.

The respondents were on average 16.6 years of age. They primarily represented three ethnic groups: Creole (14.6%), Mestizo (46.5%), and Spanish (21.3%). Respondents reported an average of 7.5 other individuals living in

their households and household incomes on average between 301 and 900 Belize dollars a month. Males represented 42.5 per cent of the sample and 38.6 per cent of the sample was from the rural high school.

Operationalizations

Where possible multiple indicants were used for each of the latent variables contained in the model presented in Figure 1. For example, the endogenous variable of media exposure (η_1) had two indicators drawn from prior research (see Johnson, 1982): a self-report of the number of hours the respondent would like to devote to the respective media (y1) and a self-report of actual number of hours of exposure (y2) to the respective media during the previous week.

The remaining indicators were taken from a battery of ten point bipolar adjective scales which asked repondents to evaluate the respective media separately. The sole indicant of the latent endogenous variable of appraisal (η_2) was best medium of its kind (y3). The latent exogenous variable of editorial tone (ξ_1) had two indicators: realistic (x1) and well-intentioned (x2). The exogenous variable of communication potential (ξ_2) also had two indicants: lively (x3) and easy to understand (x4). Finally, the exogenous variable of utility had the sole indicator of personally significant (x5).

Analysis

LISREL, a general analytic technique for estimating a linear structural equation system (i.e., path analysis) involving multiple indicators of latent variables was used to analyze and test the model presented here (see Joreskog &

Sorbom, 1981). One of the unique advantages of LISREL is that, in addition to estimating the paths contained in a model, it provides a chi-square test of the overall goodness of fit of the model to the data (Joreskog, 1974). Thus LISREL provides estimates of the fit of the entire model to the data.

LISREL has several other advantages over traditional multiple regression when used to test models of the type examined here. One, it is specifically designed for the analysis of causal relationships (Joreskog, 1970). Two, it simultaneously estimates all of the parameters in a model (Joreskog, 1970). Three, it is specifically designed for the analysis of multiple indicators of latent variables (Maruyama & McGarvey, 1980). Four, LISREL permits the simultaneous specification and estimation of theoretical and measurement relations (Fink, 1980).

RESULTS

Tables 1, 2, 3, and 4 contain the Pearson correlations, means, and standard deviations of the observed indicants for the U. S. television, Mexican television, radio, and print tests respectively. For the U. S. test generally the correlations ranged from very low, especially for the exposure indicants, to substantial, the means were fairly high, and the standard deviations moderate. The correlations in the Mexican test were very low for exposure and generally more moderate than the U.S. test, the means were also lower, but the standard deviations were similar. The correlations, including those with exposure were generally higher for radio than for the Mexican test, the means fell in between the television results, and the standard deviations were somewhat similar. Finally, for the print test the correlations were generally more elevated than the preceding test, but the means were lower and the standard deviations were higher. Generally one of the highest correlations in all of the tests was that

between the two exposure indicants.

Tables 1, 2, 3, and 4 about here

Results for U. S. Television Test

The results for the maximum likelihood tests of the theoretical model for each medium are contained in Table 5. The model provided a quite acceptable fit to the data for the U. S. television test ($\chi^2 = 19.39$, 12 d.f.). The probability level was .08 and the chi-square to degrees of freedom ratio was 1.62, which was quite exceptional for this sort of test. The paths (γ) between exogenous true variables and endogenous true variables ranged from -.46 for γ_{11}, to 1.23 for γ_{22}. The value of the α_{21} path was -.12. There was a high degree of association between the exogenous variables with values ranging from ϕ_{32}, .40 to ϕ_{31}, .47. The zeta variance were low, indicating the model does systematically account for the variances in appraisal and exposure. Since there was only one indicator for appraisal, its measurement error was fixed at .0. As a result, measurement error was incorporated in its zeta variance. This probably elevates its zeta variance.

Table 5 about here

The results for the measurement model for U.S. television are contained in Table 6. All of the observed indicants loaded heavily on their respective latent variables. The measurement errors ranged from low ($\theta_{\epsilon 2}$) to somewhat high

($\theta_{\epsilon 1}$).

Table 6 about here

Results for Mexican Television Test

The model again provided an acceptable fit to the data for Mexican television (χ^2 = 12.42, 12 d.f.) with a chi-square to degrees of freedom ratio of 1.04 and a probability level of .41. The relationships between exogenous and endogenous variables ranged from -.20 for γ_{21} to 1.14 for γ_{22}. The association between exogenous variables were generally lower than in the previous test. The α path was marginal, .05. The zeta variance were higher than in the previous test.

The results for the measurement model for the Mexican television tests are contained in Table 6. All of the observed indicants loaded heavily on their respective latent variables. The measurement errors ranged from low ($\theta_{\epsilon 1}$) to moderate ($\theta_{\delta 3}$).

Results for the Radio Test

The model provided an acceptable fit to the data for the radio test (χ^2 =12.66, 12 d.f.) with a chi-square ratio of 1.06 and a probability level of .39. The gamma paths ranged from -.15 for γ_{11} to .89 for γ_{22} and the value for α_{21} was -.01. There was a substantial association between all of the exogenous variables. The zeta variances were lower than the previous test. There was a

somewhat more moderate loading of the indicants on their latent variables than in the other tests. Finally, the measurement errors ranged from low ($\theta_{\varepsilon}2$) to moderately high ($\theta_{\delta}4$).

Results for the Print Test

As before, the model provided an acceptable fit to the data for the print test (χ^2 =18.49, 12 d.f.) with a probability level of .10, and a chi-square ratio of 1.54. Generally, the associations between latent variables were the most substantial of any of the tests. The gamma paths ranged from -.28 for γ_{11} to .95 for γ_{21}. The value for α_{21} was .10. The zeta variances were somewhat more moderate. The observed indicants loaded heavily on their latent variables and the measurement errors ranged from low ($\theta_{\delta}2$) to moderate ($\theta_{\delta}4$).

DISCUSSION

In general, the results indicated the model provided an excellent fit to the data in the comprehensive tests reported here. In addition, the residual plots were good, the standard errors were low, the residuals generally low, and the modification indices quite low. Thus H1 was confirmed. The measurement errors were also acceptable and there were high loadings of the observed indicants on the latent variables, high enough to indicate some instability in the estimates of these parameters (Fink & Mabee, 1978). The amount of variance explained in appraisal and exposure was generally superior to that reported in other tests (see Burgoon & Burgoon, 1979). All of these factors taken together were quite supportive of the general theoretical framework advanced earlier.

The results for H2 indicated at best partial support, with the television tests reporting negative relationships and the radio test a minimal relationship. In the first three phases, involving seven separate tests on magazines, there was a consistently positive relationship between these variables, which was also consistent with the literature; a pattern of findings reflected in the high positive value of this path for the print test here. However, the overall pattern of results suggested a contingent difference between electronic and print media, with audience expectations that the primarily entertainment oriented electronic media may have definite points of view, so that even though they may disagree with the editorial tone of a program, they still may appreciate it on other levels, thus not directly affecting their appraisal.

The results for H3 were definitely not supportive of the hypothesis, although the path values, except for U. S. television, were generally low. This reflects the mixed findings for these paths found in Phases I and II. It

appears that for more general purpose media there was a negative relationship between editorial tone and exposure. Which may reflect a greater audience desire to be titilated rather than informed, a factor most evident in Belizean print media. Another explanation may reflect the more ideological orientation of many developing countries. Thus individuals may expose themselves more to a medium with known biases- which they share. In any case Belizean's often have little choice in selecting their media. Thus even though Radio Belize reflects the views of the government it has other utilities not available elsewhere. In addition, the callow youth focused on here may not be overly sensitized to issues of credibility of the media. In fact, the audience, especially for television, may be presented with a world so foreign to them that they cannot make clear judgments concerning editorial tone. These two sets of findings for editorial tone also suggest that sponsorship of the media moderated this relationship, since all of the previous tests were conducted on products sponsored by the U. S. Information Agency.

Consistent with the overall framework adopted here, and in support of the general prediction made in H4, all of the paths for communication potential had highly positive relationships with appraisal, except for a slightly negative, nonsignificant relationship for print. In fact the television paths were so high they indicated some instability, perhaps reflecting the general importance of these variables, especially to a youthful population notoriously concerned with matters of style. H5 was supported with a consistently positive relationship between communication potential and exposure in these tests which suggests that for the more general audience media there was a consistently positive relationship between communication potential and exposure.

Similarly the values for the path between utility and appraisal, which were consistently positive, supported H6. The only discrepant finding for this hypothesis in previous tests was in highly competitive media environments. Thus

the results of this phase suggested a general finding for developing countries of a positive relationship between utility and appraisal. Similarly H7, which predicted a positive relationship between utility and exposure was supported in terms of direction, but the values of the paths were relatively low.

These findings for utility of relatively low values may in part reflect measurement difficulties. Unfortunately, because this was a comprehensive test and because other issues were examined in the questionnaire as well, only two indicants of the latent exogenous variables were included in the questionnaire. One of the indicators for utility, entertaining, presented rather severe identification problems, probably associated with multicollinearity in the television tests. As a result this indicator, for purposes of comparability, was removed from all of the tests.

As in the previous tests, and in spite of the more comprehensive measurement of exposure in this test, there was a minimal relationship between appraisal and exposure, given the consistent findings in the previous phases and in this test, in spite of their many differences, this finding suggested rather definitively that this path should not be included in future tests of the model. This pattern of results may be indicative of the more general problem of relating individual predispositions, represented by appraisal, to actual behavior, as revealed in the level of exposure to a magazine.

As predicted in H9 all of the covariances between exogenous latent variables in both tests ranged from moderate to highly positive. Thus all five phases bear out the important interrelationships among these variables.

A general strength of this approach over previous attempts to address these issues is the difference in operational approach. Research related to exposure and appraisal has traditionally focused on either demographic or psychographic approaches. While these approaches can provide useful descriptions of the nature of an audience, they can only provide indirect evidence of why someone

attends to a medium. To understand the root causes of someone's reactions to a particular medium, more direct linkages need to be made between explanatory variables related to both characteristics of the medium and of individual evaluations of it (e.g., King & Summers, 1971; McCombs, 1977; Stamm et al., 1978). This was the approach followed in this research and its strengths were revealed in the relatively high levels of variance accounted for in the endogenous variables.

In addition, to improved explanations this approach had the additional pragmatic benefit of suggesting specific features of a medium which need to be changed to improve evaluations. While in practice communicators cannot change demographics, they can change those characteristics of the media to which individuals react (Burgoon & Burgoon, 1979; Lehmann, 1971).

This programmatic research represents an unique attempt to validate cross-culturally an international communication model. This model has a number of implications for international relations. The mass media have often been viewed by governments as tools for improving their relationships with other countries. To this end the U. S. Information Agency, which distributed the media examined in previous phases has a two-fold mission: (1) to send the U.S.'s message to the world, thereby influencing public attitudes in other nations, and (2) to improve the U. S.'s understanding of other societies, particularly foreign opinion as it relates to U. S. policies (Comptroller General, 1974). While the mass media cannot typically be used to establish a direct dialogue, they can be used to stimulate the desire for closer relationships between the people's of various countries. In this case the television programs were not intended for the Belizean audience and the effects were unintentional, but they have important consequences nevertheless for the relationship between Belize and other countries.

In summary, this was the fifth phase of a programmatic research effort

which seeks to develop a general model of media exposure and appraisal. This programmatic research has focused on the fundamental question of why individuals choose a particular level of exposure to a medium. Answering this question is a prerequisite to understanding media effects generally because exposure is necessary for these effects to occur. Moreover this study has gone beyond most previous research to link directly respondent evaluations of a particular medium to exposure and appraisal. While there were some differences in the results of the tests of the model in this and the other phases, they are probably attributable to the contingent factors already discussed. This pattern of results also suggested the inherent problems in relying on one test, done in one country, on one population for authoritative conclusions. The most remarkable aspect of this programmatic research was the generally high degree of similarity of the tests of the model, especially in the overall goodness of fit to the data, in five different countries with thirteen different media products, which suggest that this model was indeed generalizable to a wide array of media. This overall pattern of results suggested that the model provided a basic framework in which to pursue continued research aimed at specifying even more directly various contingent factors which effect media exposure and appraisal decisions.

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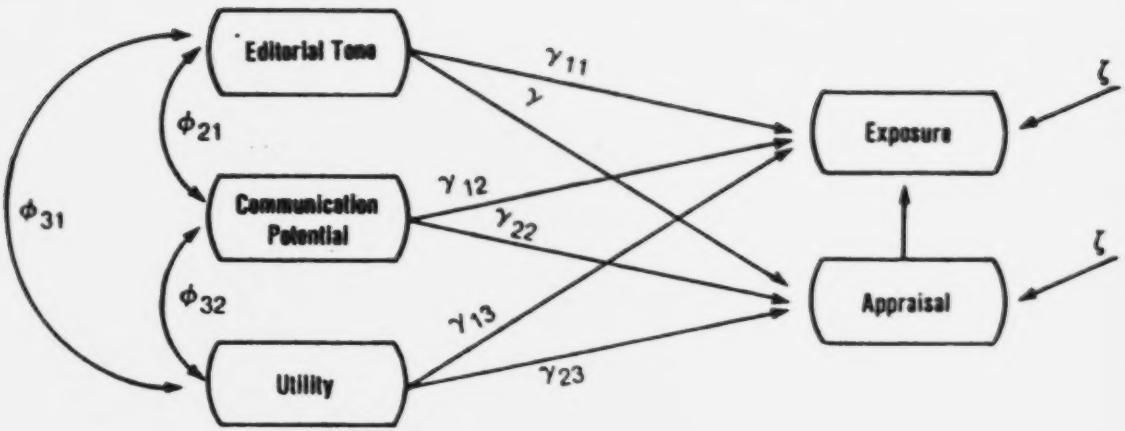

Figure 1: A causal model of factors affecting exposure and appraisal

TABLE 1
Pearson Correlations, Means, and Standard Deviations
for U.S. Television Test

Indicants	Y1	Y2	Y3	X1	X2	X3	X4	X5
Y1	1.000							
Y2	0.581	1.000						
Y3	0.145	0.187	1.000					
X1	0.175	0.131	0.407	1.000				
X2	0.133	0.089	0.471	0.455	1.000			
X3	0.216	0.174	0.572	0.438	0.435	1.000		
X4	0.167	0.186	0.489	0.365	0.350	0.465	1.000	
X5	0.154	0.290	0.512	0.488	0.427	0.436	0.277	1.000
Mean	20.163	16.682	8.057	7.256	7.184	8.343	7.730	7.351
Standard Deviation	20.163	16.129	2.351	2.726	2.560	2.350	2.796	2.610

N=250

TABLE 2
Pearson Correlations, Means, and Standard Deviations
for Mexican Television Test

Indicants	Y1	Y2	Y3	X1	X2	X3	X4	X5
Y1	1.000							
Y2	0.625	1.000						
Y3	0.102	0.140	1.000					
X1	0.082	0.030	0.261	1.000				
X2	0.048	0.038	0.349	0.438	1.000			
X3	0.080	-0.012	0.363	0.322	0.253	1.000		
X4	0.094	0.071	0.425	0.318	0.351	0.362	1.000	
X5	0.153	0.115	0.489	0.295	0.380	0.354	0.346	1.000
Mean	10.429	8.522	6.854	6.311	6.385	6.403	7.403	6.269
Standard Deviation	13.895	10.940	2.608	2.649	2.623	2.704	2.923	2.710

N=250

TABLE 3
Pearson Correlations, Means, and Standard Deviations
for Radio Test

Indicants	Y1	Y2	Y3	X1	X2	X3	X4	X5
Y1	1.000							
Y2	0.648	1.000						
Y3	0.186	0.255	1.000					
X1	0.149	0.234	0.454	1.000				
X2	0.122	0.081	0.370	0.469	1.000			
X3	0.197	0.245	0.443	0.494	0.287	1.000		
X4	0.182	0.220	0.419	0.332	0.244	0.380	1.000	
X5	0.174	0.222	0.487	0.377	0.269	0.353	0.358	1.000
Mean	16.308	14.795	7.322	7.243	7.087	7.159	8.308	6.636
Standard Deviation	18.717	17.227	2.653	2.711	2.646	2.711	2.267	2.813

N=250

TABLE 4
Pearson Correlations, Means, and Standard Deviations
for Print Test

Indicants	Y1	Y2	Y3	X1	X2	X3	X4	X5
Y1	1.000							
Y2	0.660	1.000						
Y3	0.157	0.246	1.000					
X1	0.178	0.203	0.460	1.000				
X2	0.170	0.130	0.491	0.485	1.000			
X3	0.245	0.256	0.415	0.414	0.451	1.000		
X4	0.221	0.192	0.349	0.433	0.301	0.445	1.000	
X5	0.205	0.225	0.563	0.529	0.496	0.461	0.476	1.000
Mean	6.828	6.017	5.775	6.012	5.654	5.076	6.829	5.705
Standard Deviations	9.685	9.030	3.126	3.145	2.957	2.788	3.066	3.065

TABLE 5

Maximum Likelihood Results for Theoretical Model

Parameter	Test			
	U.S. Television	Mexican Television	Radio	Print
γ_{11}	-.46	-.06	-.15	-.28
γ_{21}	-.43	-.20	.03	.95
γ_{12}	.41	.13	.58	.71
γ_{22}	1.23	1.14	.89	-.20
γ_{13}	.22	.12	.01	.01
γ_{23}	.24	.18	.14	.15
α_{21}	-.12	.05	-.01	.10
ϕ_{21}	.44	.27	.45	.43
ϕ_{31}	.47	.32	.38	.52
ϕ_{32}	.40	.33	.38	.49
ζ_1	.29	.65	.41	.49
ζ_2	.37	.54	.51	.52
χ^2	19.39	12.42	12.66	18.49
d f	12	12	12	12
Ratio	1.62	1.04	1.06	1.54
Prob. Level	.08	.41	.39	.10

TABLE 6

Maximum Likelihood Results for Measurement Model

PARAMETER	TESTS				PARAMETER	TESTS			
	U.S. Television	Mexican Television	Radio	Print		U.S. Television	Mexican Television	Radio	Print
λ_{y_1}	1.00[a]	1.00	1.00	1.00	$\theta_{\varepsilon 1}$	.66	.33	.50	.39
λ_{y_2}	1.71	.93	1.29	1.09	$\theta_{\varepsilon 2}$	.00[b]	.42	.17	.28
λ_{y_3}	1.00	1.00	1.00	1.00	$\theta_{\varepsilon 3}$	.00	.00	.00	.00
λ_{x_1}	1.00	1.00	1.00	1.00	$\theta_{\delta 1}$	.53	.61	.33	.50
λ_{x_2}	.97	1.12	.70	.97	$\theta_{\delta 2}$	.56	.51	.67	.53
λ_{x_3}	1.00	1.00	1.00	1.00	$\theta_{\delta 3}$	.45	.68	.55	.51
λ_{x_4}	.84	1.14	.85	.91	$\theta_{\delta 4}$	.61	.59	.68	.59
λ_{x_5}	1.00	1.00	1.00	1.00	$\theta_{\delta 5}$	.00	.00	.00	.00
ϕ_{11}	.47	.39	.67	.50	ϕ_{33}	1.00	1.00	1.00	1.00
ϕ_{22}	.55	.32	.45	.49					

a. For identification purposes the λ_{y1}, λ_{y3}, λ_{x1}, λ_{x3}, and λ_{x5} parameters were fixed at 1.00 (see Joreskog & Van Thillo, 1972)

b. The measurement error variances for y_3 and x_5 were fixed at .0, since it was the sole indicator or η_1. This results in the measurement error being incorporated in the zeta variance in the residuals of their associated latent variables.